OIPE

1/2

ENTERED

23

33

16

RAW SEQUENCE LISTING
PATENT APPLICATION: US/09/833,117

DATE: 05/02/2001 TIME: 12:21:03

Input Set : A:\PF543\$L.txt

Output Set: N:\CRF3\05022001\1833117.raw

5 Prior, Christopher P. 6 Turner, Andrew J.

8 <120> TITLE OF INVENTION: Albumin Fusion Proteins

10 <130> FILE REFERENCE: PF543

C--> 12 <140> CURRENT APPLICATION NUMBER: US/09/833,117

13 <141> CURRENT FILING DATE: 2001-04-12

15 <150> PRIOR APPLICATION NUMBER: 60/229,358

16 <151> PRIOR FILING DATE: 2000-04-12

18 <150> PRIOR APPLICATION NUMBER: 60/256,931

19 <151> PRIOR FILING DATE: 2000-12-21

21 <150> PRIOR APPLICATION NUMBER: 60/199,384

22 <151> PRIOR FILING DATE: 2000-04-25

24 <160> NUMBER OF SEQ ID NOS: 36

26 <170> SOFTWARE: PatentIn Ver. 2.1

28 <210> SEQ ID NO: 1

29 <211> LENGTH: 23

30 <212> TYPE: DNA

31 <213> ORGANISM: Artificial Sequence

33 <220> FEATURE:

34 <221> NAME/KEY: primer bind

35 <223> OTHER INFORMATION: primer useful to clone human growth hormone cDNA

37 <400> SEQUENCE: 1

38 occaagaatt cocttaticca ggo

41 <210> SEQ ID NO: 2

42 <211> LENGTH: 33

43 <212> TYPE: DNA

44 < 213 > ORGANISM: Artificial Sequence

46 <220> FEATURE:

 $47 < 221 > NAME/KEY: primer_bind$ 

48 < 223> OTHER INFORMATION: primer useful to clone human growth hormone cDNA

50 <400> SEQUENCE: 2

51 gggaagetta gaageeacag gateeeteea cag

54 < 210 > SEQ ID NO: 3

55 <211> LENGTH: 16

56 <212> TYPE: DNA

57 <213> ORGANISM: Artificial Sequence

59 <220> FEATURE:

60 <221> NAME/KEY: misc structure

61 <223> OTHER INFORMATION: synthetic oligonucleotide used to join DNA fragments

62 with non-cohesive ends.

64 <400> SEQUENCE: 3

65 gataaagatt cccaac

68 <210 > SEQ ID NO: 4

69 < 211 > LENGTH: 17

70 <212> TYPE: DNA

DATE: 05/02/2001 ITME: 12:21:03

PATENT APPLICATION: US/09/833,117

Input Set : A:\PF543SL.txt

Output Set: N:\CRF3\05022001\I833117.raw

71 <213> ORGANISM: Artificial Sequence 73 <220> FEATURE: 74 <221> NAME/KEY: misc\_structure 75 <223> OTHER INFORMATION: synthetic oligonucleotide used to join DNA fragments with non-cohesive ends. 78 <400> SEQUENCE: 4 79 aatitigtitiggg aatictitit 17 82 <210> SEQ ID NO: 5 83 <211> LENGTH: 17 84 <212> TYPE: DNA 85 <213> ORGANISM: Artificial Sequence 87 <220> FEATURE: 88 <221> NAME/KEY: misc structure 89 <223> OTHER INFORMATION: synthetic oligonucleotide used to join DNA fragments 90 with non-cohesive ends. 92 <400> SEQUENCE: 5 17 93 traggettat teccaac 96 <210> SEQ ID NO: 6 97 <211> LENGTH: 18 98 <212> TYPE: DNA 99 <213> ORGANISM: Artificial Sequence 101 <220> FEATURE: 102 <221> NAME/KEY: misc\_structure 103 <223> OTHER INFORMATION: synthetic oligonucleotide used to join DNA fragments with non-cohesive ends. 106 <400> SEQUENCE: 6 107 aattgttggg aataagcc 18 110 <210> SEQ ID NO: 7 111 <211> LENGTH: 24 112 <212> TYPE: PRT 113 <213> ORGANISM: Artificial Sequence 115 <220> FEATURE: 116 <221> NAME/KEY: SITE 117 < 222 > LOCATION: 1)..(19)118 <223> OTHER INFORMATION: invertase leader sequence 120 <220> FEATURE: 121 <221> NAME/KEY: SITE 122 <222> LOCATION: 20)..(24) 123 <223> OTHER INFORMATION: first 5 amino acids of mature human serum albumin 125 <400> SEQUENCE: 7 126 Met. Leu Leu Gln Ala Phe Leu Phe Leu Leu Ala Gly Phe Ala Ala Lys 127 1.0 1 5 129 Ile Ser Ala Asp Ala His Lys Ser 133 <210> SEQ ID NO: 8 134 <211> LENGTH: 21 135 <212> TYPE: DNA

138 <220> FEATURE:

136 <213> ORGANISM: Artificial Sequence

DATE: 05/02/2001

PATENT APPLICATION: US/09/833,117

TIME: 12:21:03

Input Set : A:\PF543SL.txt

Output Set: N:\CRF3\05022001\1833117.raw

- 139 <221> NAME/KEY: misc structure
- 140 <223> OTHER INFORMATION: synthetic oligonucleotide used to join DNA
- 141 fragments with non-cohesive ends.
- 143 <400> SEQUENCE: 8
- 144 gagatgoaca cotgagtgag g

21

- 147 <210> SEQ ID NO: 9
- 148 <211> LENGTH: 27
- 149 <212> TYPE: DNA
- 150 <213> ORGANISM: Artificial Sequence
- 152 <220> FEATURE:
- 153 <221> NAME/KEY: misc\_structure
- 154 < 223 > OTHER INFORMATION: synthetic oligonuclectide used to join DNA
- fragments with non-cohesive ends.
- 157 <400> SEQUENCE: 9
- 158 gateetgtgg ettegatgea cacaaga

27

- 161 <210> SEQ ID NO: 10
- 162 <211> LENGTH: 24
- 163 <212> TYPE: DNA
- 164 <213> ORGANISM: Artificial Sequence
- 166 <220> FEATURE:
- 167 <221> NAME/KEY: misc\_structure
- 168 <223> OTHER INFORMATION: synthetic oligonucleotide used to join DNA
- fragments with non-cohesive ends.
- 171 <400> SEQUENCE: 10
- 172 ct.ct.t.gt.gt.g categaagee acag

24

- 175 <210> SEQ ID NO: 11
- 176 <211> LENGTH: 30
- 177 < 212> TYPE: DNA
- 178 <213> ORGANISM: Artificial Sequence
- 180 <220> FEATURE:
- 181 <221> NAME/KEY: misc structure
- 182 <223> OTHER INFORMATION: synthetic oligonucleotide used to join DNA
- fragments with non-cohesive ends.
- 185 <400> SEQUENCE: 11
- 186 tgtqqaaqaq cctcagaatt tattcccaac

30

- 189 <210> SEQ ID NO: 12
- 190 <211> LENGTH: 31
- 191 <212> TYPE: DNA
- 192 <213> ORGANISM: Artificial Sequence
- 194 <220> FEATURE:
- 195 <221> NAME/KEY: misc\_structure
- 196 <223> OTHER INFORMATION: synthetic oligonucleotide used to join DNA
- 197 fragments with non-cohesive ends.
- 199 <400> SEQUENCE: 12
- 200 aattqtfggg aataaattct gaggctcttc c

31

- 203 < 210 > SEQ ID NO: 13204 < 211 > LENGTH: 47
- 205 <212> TYPE: DNA
- 206 < 213 > ORGANISM: Artificial Sequence

DATE: 05/02/2001 TIME: 12:21:03

PATENT APPLICATION: US/09/833,117

Input Set : A:\PF543SL.txt

Output Set: N:\CRF3\05022001\1833117.raw

208 <220> FEATURE: 209 <221> NAME/KEY: misc structure 210 <223> OTHER INFORMATION: synthetic oligonucleotide used to join DNA fragments with non-cohesive ends. 213 <400> SEQUENCE: 13 214 traggerrag giggegging alreeggeggi ggiggatett receaar 47 217 <210> SEQ ID NO: 14 218 <211> LENGTH: 48 219 <212> TYPE: DNA 220 <213> ORGANISM: Artificial Sequence 222 <220> FEATURE: 223 <221> NAME/KEY: misc\_structure 224 <223> OTHER INFORMATION: synthetic oligonucleotide used to join DNA fragments with non-cohesive ends. 227 <400> SEQUENCE: 14 48 228 aattgftggg aaagateeae cacegeegga tecacegeea eetaagee 231 <210> SEO ID NO: 15 232 <211> LENGTH: 62 233 <212> TYPE: DNA 234 <213> ORGANISM: Artificial Sequence 236 <220> FEATURE: 237 <221> NAME/KEY: misc\_structure 238 <223> OTHER INFORMATION: synthetic oligonucleotide used to join DNA fragments with non-cohesive ends. 241 <400> SEQUENCE: 15 242 traggettag geggtggtgg atelggligge ggeggaletg gliggeggigg afecticeea 60 62 246 <210> SEQ ID NO: 16 247 <211> LENGTH: 63 248 <212> TYPE: DNA 249 <213> ORGANISM: Artificial Sequence 251 < 220> FEATURE: 252 <221> NAME/KEY: misc\_structure 253 <223> OTHER INFORMATION: synthetic oligonucleotide used to join DNA fragments with non-cohesive ends. 256 <400> SEQUENCE: 16 257 aartigtiggg aaggaticeae egecancaga teegeegeea eeagaticeae caeegeetaa 60 258 gcc 261 <210> SEQ ID NO: 17 262 <211> LENGTH: 1782 263 <212> TYPE: DNA 264 <213> ORGANISM: Homo sapiens 266 <220> FEATURE: 267 <221> NAME/KEY: CDS 268 < 222 > LOCATION: (1)..(1755)271 <400> SEQUENCE: 17 272 gat gea cae aag agt gag git, get eat egg tit aaa gat iig gga gaa 273 Asp Ala His Lys Ser Glu Val Ala His Arg Phe Lys Asp Lea Gly Glu

1.0

5

274 1

PATENT APPLICATION: US/09/833,117

DATE: 05/02/2001 TIME: 12:21:03

Input Set : A:\PF543SL.txt

Output Set: N:\CRF3\05022001\I833117.raw

276	gaa	aat	t.t.c	aaa	qcc	ttg	gtg	ttg	a t.t	qcc	t t.t	got.	cag	t.a t	ctt	cag	96
277	Glu	Asn	Phe	Lys	Ala	Leu	Val	Leu	He	Ala	Phe	Ala	$\operatorname{Gln}$	Туг	Leu	Gln	
278				20					25					30			
280	cag	t.gt.	cca	t. t. t	qaa	gat.	cat.	gta	aaa	t t a	gt q	aat.	gaa	gta	act.	gaa	144
281	Gln	Cys	Pio	Phe	Glu	Asp	His	Val	Lys	Leu	Val	Asn	Glu	Val	Thr	G1u	
282		-	35					40					4.5				
284	t.t.t	gca	aaa	aca	t.gt	gt t.	get	gat	gag	t.ca	get	gaa	aat	tgt.	qac	aaa	192
285	Phe	Ala	Lys	Thr	Cys	Val	Ala	Asp	Glu	Ser	Ala	Glu	Asn	Cys	Asp	Lys	
286		50					55					60					
288	t.ca	ctt	cat	acc	ct.t	t.t.t.	gga	gac	aaa	t.t.a	t.gc	aca	g <u>t.</u> t.	gca	act	ctt.	240
289	Ser	Leu	His	Thr	Leu	Phe	Gly	Asp	Lys	Len	Cys	Thr	Val	Λla	Thr	Leu	
290	65					7.0					75					80	
292	cgt.	gaa	acc	t.a t	ggt	qaa	atg	get,	gac	tge	tgt	qca	aaa	caa	gaa	aat,	288
293	Arg	Glu	Thr	Туr	Gly	G1u	Met.	Ala	Asp	Cys	Cys	Ala	Lys	Gln	$\operatorname{Glu}$	Pro	
294					8.5					90					95		
296	gaq	aga	aat.	gaa	tgc	ttc	t t.g	caa	cac	aaa	gat	gac	aac	cca	aac	ct.c	336
297	Glu	Arg	Asn	Glu	Cys	Phe	Leu	Gln	His	Lys	Asp	Asp	Asn	Pro	Asn	Leu	
298				100					105					110			
300	CCC	cga	t.t.g	gtg	aga	cca	gag	gt.t.	gat	gt,g	atg	tga	act	gat.	t t.t.	cat	384
301	Pro	Arg	Leu	Val	Arg	Pro	Glu	Val	Asp	Val	Met.	Cys	Thr	Ala	Phe	His	
302			115					120					125				
304	gac	aat.	gaa	qag	aca	ttt.	t.t.g	aaa	aaa	tac	tta	tat	gaa	at.t	gcc	aga	432
305	Asp	Asn	Glu	Glu	Thr	Phe	Leu	Lys	Lys	Tyr	Leu	Tyr	Glu	$_{11e}$	Ala	Arg	
306		130					135					140					
308	aga	cat	cct	t.ac	t. t. t.	t.at.	gcc	ccg	gaa	ctc	ct.t.	t.t.c	t.tt.	gat.	aaa	agg	480
309	Arg	His	Pro	Туг	${\tt Phe}$	Туr	Ala	Pro	$\operatorname{Gl} u$	Leu	Leu	Phe	Phe	Ala	Lys	Arg	
	145					150					155					160	
312	t.a.t.	aaa	gat	gat.	1. t. t.	aca	gaa	t, g.t.	tga	caa	get,	gat	gat	aaa	get	gee	528
313	Tyr	Lys	Ala	Ala	Phe	Thr	Glu	Cys	Cys	Gln	Ala	Ala	Asp	L78	Ala	Ala	
314					165					170					175		
									ctt								576
317	Cys	Leu	Leu	$_{\rm LO}$	Lys	Leu	Asp	Glu	Leu	Arg	Asp	Glu	Gly	Lys	Ala	Ser	
318				180					185					190			
320	tot	gcc	aaa	cag	aqa	ct.c	aaa	tgt	gcc	agt.	ct.c	caa	aaa	t.t.t.	qga	gaa	624
321	Ser	Ala	Lys	Gln	Arg	Leu	Lys	Cys	Ala	Ser	Leu	Glu	Lys	Phe	GlA	Glu	
322			195					200					205				
324	aga	gat	t t, c	ada	qca	t gg	gca	gtg	get	cgc	ctg	age	cag	aqa	t.t.t.	CCC	672
325	Arg	Ala	Phe	Lys	Ala	Trp	Ala	Val	Ala	PIA	Leu	Ser	Gln	Arg	Phe	Pro	
326		210					215					220					
									aag								720
	-	Ala	Glu	Phe	Ala		Val	Ser	$L\gamma s$	Leu	Val	Thr	Asp	Leu	Thr	Lys	
	225					230					235					240	
									gat								768
	Val	His	Thr	Glu		Cys	His	Gly	Asp		Leu	Glu	Cys	Ala		Asp	
3 3 4					245					250					255		
			-						tgt								816
	Arg	Ala	Asp		Ala	Lys	Tyr	He	Cys	Glu	Asn	Gin	Asp		116	Ser	
338				260					265					270			
340	agt.	aaa	ct.g	aag	gaa	tgc	t,gt.	gaa	aaa	aat.	ct.g	t t.g	gaa	aaa	tcc	cac	864

## Please Note.

Use of n and/or Xaa have been detected in the Sequence Listing. Please review the Sequence Listing to ensure that a corresponding explanation is presented in the <220> to <223> fields of each sequence which presents at least one n or Xaa.

## VERIFICATION SUMMARY

DATE: 05/02/2001

PATENT APPLICATION: US/09/833,117

TIME: 12:21:04

Imput Set : A:\PF543SL.txt

Output Set: N:\CRF3\05022001\1833117.raw

L:12 M:270 C: Current Application Number differs, Replaced Current Application Number

L:710 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:25 L:799 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:26

L:888 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:27

L:978 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:28

L:1182 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:32

L:1285 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:33